

12. (Twice Amended) The microcontact structure according to Claim 10 wherein said shape modifying means comprises a surgical device or transmitting signals to the microcontact structure, in particular electromagnetic signals, light or ultrasound.

15. (Twice Amended) The microcontact structure according to Claim 2 wherein said shape modifying means is utilized for re-explanation of the structure and said shape modifying means takes place in a measured manner in a time-controlled sequence with respect to movement and force by an external action.

16. (Twice Amended) Method for using the microcontact structure according to claim 2 in a surgical procedure, said procedure selected from the group consisting of retinal implantation for a retina implant, intracranial implantation on nerve tissue inside the skull, spinal implantation on nerve tissue of the spinal cord and its surroundings, and implantation on peripheral nerves.

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REMARKS

Subsequent to receipt of the Office Action dated November 14, 2002, a telephonic interview was conducted between Examiner Cohen and Thomas Onka, Attorney for Applicants. During that interview the language of Claim 2 was discussed, in particular the phrase "positioning means". Applicants noted that the term was intended to describe an important feature of the present invention – that the microcontact structure would essentially assume the shape of the tissue surface to which it was attached. Applicants

acknowledged that the phrase “positioning means” is misleading in that it could be interpreted as the structure being placed in a target area during the surgical procedure.

Applicants suggested replacing the phrase “positioning means” with the phrase “shape modifying means” to remedy this ambiguity. The Examiner acknowledged that such a “shape modifying means” feature was not taught by the applied Avery prior art reference. The Examiner also indicated that since the November 14, 2002 Office Action was marked “final”, such a change in the claim language would not be entered as it would necessitate a new search.

With this Preliminary Amendment, Applicants have changed claim 2 to recite a “shape modifying means”. Claim 2 has also been modified to be the only independent claim (with previously independent claim 1 now depending from claim 2). Claims 4, 5, 7, 9-12, 15 and 16 have been amended accordingly as to dependency issues and to clarify their meaning.

Support for the “shape modifying means” is found in the Specification, inter alia, at page 6, lines 9-14 and Fig. 3. As it may be difficult to conceptualize the 3-dimensional aspects of the invention from Fig. 3, Applicants have attached hereto more detailed drawings of the device’s application involving parafoveal cell craters of a human eye (described in the specification at page 2, lines 22-27). These additional drawings show how the microcontact structure’s shape is modified to conform to the shape of the attachment area. These drawings also demonstrate the relationship of Fig. 3 and Figs. 1 of the application (where the new drawings depict 8 regions of the structure as opposed to a 4 region structure illustrated in Fig. 1a).

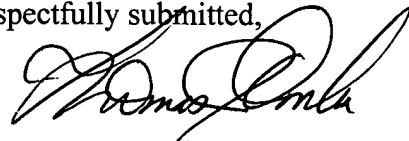
Applicants submit that as amended, claim 2 is neither taught nor suggested by the art of record and that accordingly it is deemed patentable over these references.

Attached hereto is a marked-up version of the changes by the current amendment. The attached page(s) is/are captioned "VERSION WITH MARKINGS TO SHOW
5 CHANGES MADE".

Applicant respectfully requests that a timely Notice of Allowance be issued in this case.

Respectfully submitted,

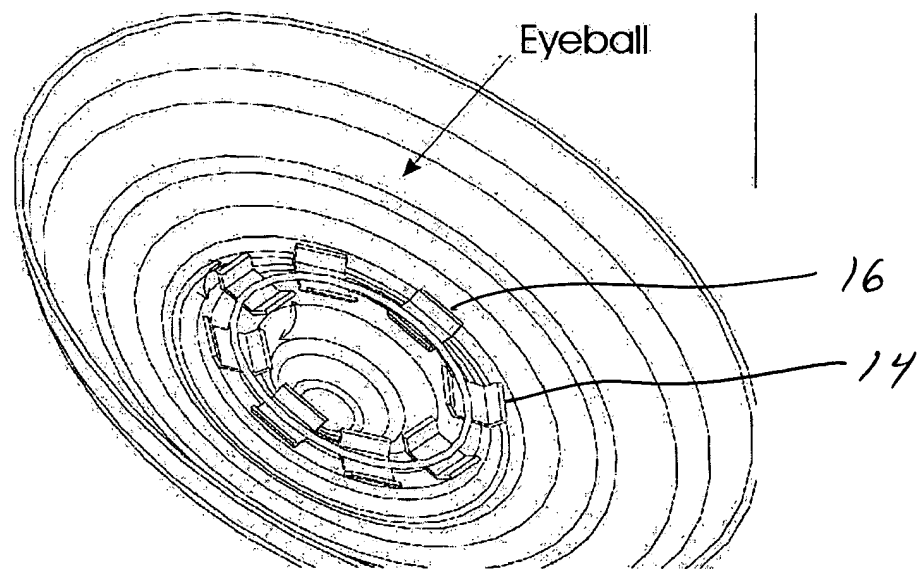
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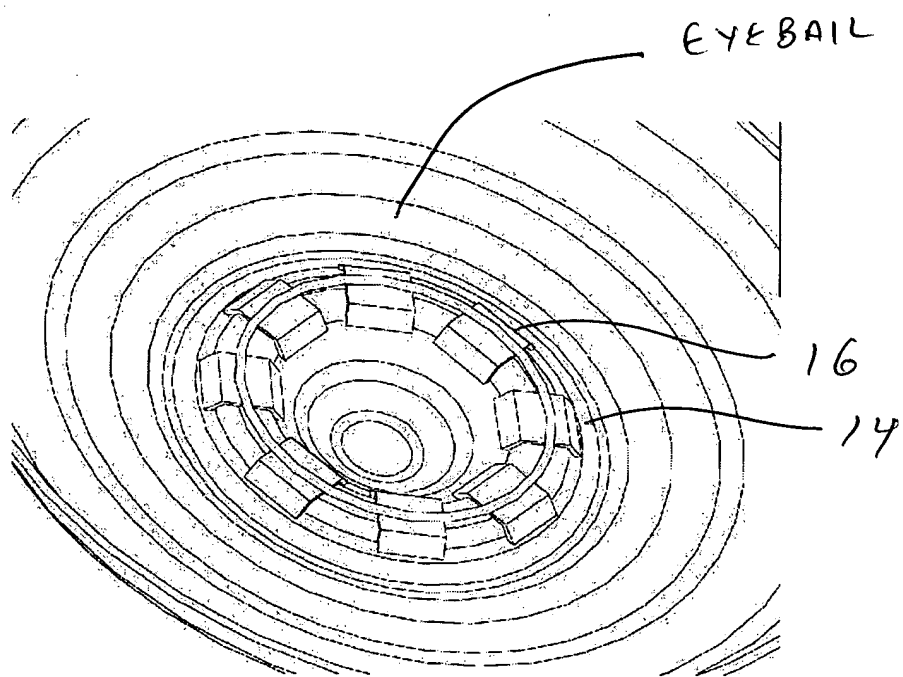
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DEVICE OPEN



DEVICE CLOSED

VERSION WITH MARKINGS TO SHOW CHANGES MADE

In the Claims:

1. (Twice Amended) The microcontact structure according to Claim 2 ~~An implantable~~
5 ~~microcontact structure for neuroprostheses comprising:~~

wherein said at least one contact element, ~~said element~~ is formed on at least one two-dimensional carrier wherein the carrier has at least two regions that are movable relative to one another,

said microcontact structure ~~capable of assuming at least two desired positions for~~
10 ~~the purposes of mechanical anchorage, said desired positions comprising a basic position~~
~~and an operating position, and said microcontact structure~~ having a spatial extent wherein said spatial extent is minimized during surgical transportation to an implant point by compacting the regions ~~parts~~ that are movable relative ~~on~~ to one another.

15 2. (Twice Amended) ~~The microcontact structure according to Claim 1 further comprising~~
An implantable microcontact structure for neuroprostheses, said microcontact structure
capable of assuming at least two desired positions for the purposes of mechanical
anchorage, said desired positions comprising a basic position and an operating position,
said structure comprising:

20 at least one contact element, and

~~a positioning~~ a shape modifying means wherein the desired positions of the microcontact structure can be fixed, interchanged or altered by external action before

implantation, during a surgical intervention or by external signals without surgical intervention.

4. (Twice Amended) The microcontact structure according to Claim 1 further comprising a minimizing means selected from the group consisting of folding, nesting and rolling wherein the spatial extent of the microcontact structure is capable of being minimized during the surgical transportation to the implant point ~~by a minimizing means selected from the group consisting of folding, nesting and rolling.~~

5. (Twice Amended) The microcontact structure according to Claim 1 further comprising a releasing means wherein said compacting can be released by a said releasing means after the surgical transportation.

7. (Twice Amended) The microcontact structure according to Claim 6 further comprising at least one junction area between contiguous regions and a lock releasing means, said lock releasing means permitting releasing forces at ~~the junctions between the regions of the microcontact structure to~~ said at least one junction to thereby open the microcontact structure out of the compact state.

9. (Twice Amended) The microcontact structure according to Claim 2 wherein the ~~positioning~~ shape modifying means is utilized to attain a mechanical anchorage and takes place in a measured manner in a time-controlled sequence with respect to movement and force as a result of the external action.

10. (Twice Amended) The microcontact structure according to Claim 2 wherein ~~the~~
~~positioning~~ said shape modifying means is utilized to optimize an electrical contact or an
active connection with the nerve tissue and takes place in a measured manner in a time-
5 controlled sequence with respect to movement and force as a result of an external action.

11. (Twice Amended) The microcontact structure according to Claim 9 wherein said
~~positioning~~ shape modifying means comprises a surgical device or transmitting signals to
the microcontact structure.

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12. (Twice Amended) The microcontact structure according to Claim 10 wherein said
~~positioning~~ shape modifying means comprises a surgical device or transmitting signals to
the microcontact structure, in particular electromagnetic signals, light or ultrasound.

15 15. (Twice Amended) The microcontact structure according to Claim ~~1~~2 wherein ~~the~~
~~positioning~~ said shape modifying means is utilized for re-explanation of the structure and
said ~~position~~ shape modifying means takes place in a measured manner in a time-
controlled sequence with respect to movement and force by an external action.

20 16. (Twice Amended) Method for using the microcontact structure according to claim ~~1~~
2 in a surgical procedure, said procedure selected from the group consisting of retinal
implantation for a retina implant, intracranial implantation on nerve tissue inside the

skull, spinal implantation on nerve tissue of the spinal cord and its surroundings, and implantation on peripheral nerves.